

# Carcinoma Gall bladder - Our Experience

K M GONDAL S M MIRZA F HANIF M AHMAD A A ALI I MAHMOOD

Department of Surgery, K.E. Medical College, Lahore.

Correspondence to: Dr. Khalid Masood Gondal, Assisant Professor Surgery

Carcinoma gallbladder is highly lethal disease and most common malignant lesion of biliary tract which continuously gives rise to diagnostic and therapeutic challenges. A prospective study of 18 cases of carcinoma gallbladder admitted in North Surgical Unit of Mayo Hospital, Lahore in two years (1997-98) is presented. The majority of the patients were females in 5<sup>th</sup> and 6<sup>th</sup> decade of life and admitted through OPD(73%) and (27%) through emergency. Preoperative suspicion of carcinoma was made in 83% of cases. Most of the cases presented in Stage IV and V. Eighty three percent of the patients had gall stones. Various operative procedures performed were cholecystectomy (2) extended cholecystectomy (6), open biopsy of the tumour only (4), biopsy and stenting of CBD (2), biopsy and hepaticogastrostomy (2), fine needle aspiration cytology only (2). The mean hospital stay was 9 days. The operative mortality was 5.5% in this series.

**Key words:** Carcinoma gallbladder, extended cholecystectomy, stenting of CBD.

Carcinoma gallbladder is one of the most malignant biliary tumour the mortality rate of which ranks among the highest in the world<sup>1</sup>. The prognosis is usually poor depending on the extent of surrounding tissue invasion<sup>2</sup>. 1-2% of the patients undergoing operation for cholelithiasis have the diagnosis made incidentally at the time of operation. In our set up the majority are discovered with advanced disease during ultrasonography for upper abdominal symptoms.

Since the symptoms and signs are vague and non specific, it is difficult to diagnose gall bladder malignancy at early stage which is the main cause of poor prognosis.

## Patients and methods

All patients admitted in North Surgical Ward in the year 1997-98 with gallbladder pathology were studied. The cases in which the diagnosis of carcinoma gall bladder was established were included in the study. The patients were thoroughly investigated Complete examination of blood, urinalysis, blood urea, blood sugar, serum electrolytes, LFTs, x-ray chest and abdominal ultrasonography were carried out in all cases. C. T. scan, ERCP, PTC, PT, APTT, FNAC and Laparoscopy were done in selected cases. Data collected included number of patients, age, sex, clinical presentation, operative procedures and post operative complications including mortality.

## Results

During the study period of two years starting from January 1997 to December 1998. Two hundred and thirty six patients with gallbladder disease were admitted, 18 of these had proven carcinoma gall bladder. Age ranged between 35 to 72 year with mean of 53 years. 14 were females and rest were males. Thirteen patients were admitted through OPD and 5 through emergency. Pain right hypochondrium was the most common symptom present in all cases. Five of these complained of mass right hypochondrium, jaundice was present in 6 patients. Fifteen patients had gallstones. Sixteen patients were diagnosed

preoperatively on the basis of presentation and investigations whereas 2 patients were incidentally diagnosed. Various operative procedures carried out are shown in Table 1.

Table 1. Operative procedures

Name of operation	n=	%age
Cholecystectomy	2	11.1
Extended cholecystectomy	6	33.3
Open biopsy of tumour only	4	22.2
Biopsy and stenting of CBD	2	11.1
Biopsy and hepaticogastrostomy	2	11.1
Fine needle aspiration cytology	2	11.1

The tumor was staged according to Nevine's Staging as shown in Table 2

Table 2. Nevine's staging of cases

Stage	n=	%age
I. Intramucosal only	0	00
II Extent to the muscularis	2	11.1
III Extends through the serosa	1	5.5
IV Transmural involvement and cystic lymph node involved	5	27.7
V Direct extension to liver and / or distant metastasis	10	55.5

Adenocarcinoma was most common tumor present in 77.7% of cases as shown in table No. 3.

Table 3. Histopathological diagnosis

Histology	n=	%age
Adenocarcinoma	14	77.7
- Undifferentiated	5	
- Moderately differentiated	5	
- Well differentiated	4	
Adenosquamous	2	11.1
Squamous cell carcinoma	2	11.1

There was one death in this series who was having obstructive jaundice with serum bilirubin 14gm/dl and cholangitis. She died due to septic shock on 5<sup>th</sup> postoperative day.

### Discussion

Carcinoma gallbladder is the most common malignancy of biliary tract and is very lethal due to poor prognosis. The commonest aetiological factor is cholelithiasis which is present in 65-90% of the cases<sup>4</sup>. In our study 83% of the patient had gallstones. Risk of the cancer increases directly with the duration of disease and size of gallstones<sup>5</sup>. There is no association of any specific type of stone. The other risk factors include carcinogens, porcelain gallbladder, typhoid carrier, gallbladder polyp, choledochal cyst, anomalous pancreaticobiliary duct junction (APBD) and adenomyomatosis<sup>5</sup>. The majority of carcinoma of gall bladder are adenocarcinomas similar to our study. The other types include squamous and adenosquamous carcinoma<sup>6</sup>.

In 15-20% of the cases carcinoma is discovered incidentally at the time of routine cholecystectomy or postoperatively on histopathology. Incidental diagnosis in our series is 11%. In another local series it was 6.66%<sup>7</sup>. Majority of our patients had late presentation and mass was either palpable or picked up by ultrasonography. The peak incidence is in between 70-75 years with male to female ratio 1:3. But in our series it was in between 50-60 years probably due to major environmental influences such as diet etc<sup>7</sup>. Identification and elimination of these factors can lead to prevention and control of the disease.

As far as the treatment is concerned the only potential curable therapy is surgical resection. But due to advanced disease most of the patients had unresectable tumour. We were able to resect the gallbladder and the tumour in about half of the cases. In 4 patients the peritoneal cavity was studded with secondaries so open biopsy was done.

When the disease is advanced and patients present with obstructive jaundice some sort of drainage procedure is recommended. We were able to do stenting of CBD in 2 patients and hepaticogastrostomy in similar number. In hepaticogastrostomy a wedge of left lobe was resected and minor biliary duct was localized, as bile is under pressure so localization is not difficult, a feeding tube No.6 Fr was passed in the duct and the stomach thus draining the bile directly into the stomach. We found this as a safe method in jaundiced patients as serum bilirubin fell from 18mg% to 3mg% within 2 weeks and patient had comfortable life for 3 months.

As majority of our patients were in Stage IV and V so we did not submit them to Radiotherapy, as the role is controversial in advance disease because of relative resistance of the tumour to radiotherapy. In one series patients with Stage IV disease underwent radical resection combined with intraoperative radiotherapy the cumulative survival rate for 3 years increased upto to 10%. The role of radiotherapy as an adjuvant to surgery must be further studied before being recommended as standard therapy for

carcinoma gallbladder<sup>8</sup>. Similarly the chemotherapy has had a limited impact on the overall management of carcinoma gallbladder. Our patients were referred to oncology department where they advised 5 Fluorouracil. Some people also recommend chemotherapy in combination i.e. 5-fluorouracil adriamycin and mitomycin C<sup>9</sup>. In an other study the adjuvant chemotherapy did not show any improvement in the disease free survival<sup>10</sup>. Further studies are required before the routine use of chemotherapy for carcinoma of gallbladder can be recommended.

### Conclusion

- 1) Carcinoma gallbladder is usually detected at a later stage and has a poor prognosis.
- 2) When the patient presents with obstructive jaundice some sort of stenting or bypass should be considered.
- 3) Early cholecystectomy should be done in patients who are suffering from gallstones.
- 4) A suspicion of malignancy should be kept in mind in long standing cholelithiasis with a recent change in symptoms.
- 5) Routine histopathology of all gallbladders should be standard practice.

### References

1. Roa I, Villaseca M, Araya J, Roa J, de-Aretxala X, Melo A, Ibaache G: P53 tumour suppressor gene protein expression in early and advanced gallbladder carcinoma. *Histopathology* 1997 Sep; 31(3):226-30
2. Li H, Shimura H, Aoki Y, Date K, Matsumo K, Nakamura T, Tanaka M: Hepatocyte growth factor stimulates the invasion of gallbladder carcinoma cell vitro. *Clin Exp Metastasis*. 1998 Jan; 16(1): 74-82.
3. Hohaus T, Hellmich G, Freitag M, Ludwig K: Gallbladder carcinoma- an unexpected finding after laparoscopic cholecystectomy. *Zentralbl Chir*, 1998; 123 Suppl 2:80-3.
4. Schauer R, Rau H, Baretton G, Blasenbren S, Meyer G, Schildberg FW: Prognostic factors in gallbladder carcinoma as a decision aid for reoperation. *Langenbecks Arch Chir Suppl Kongressbd*. 1997; 114: 1072-4.
5. Dichl AK: Gallstone size and the risk of gallbladder cancer. *JAMA* 1983; 250: 2323-2326.
6. Henson DE, Albores-Saavedra J, Corle D: Carcinoma of the gallbladder. Histological types, stage of disease, grade and survival rates. *Cancer*, 1992; 70: 1493-1497.
7. Shah SA, Shami IU, Bhatti MA: Gallstone disease in Pakistan. *J. Surg* 1990, Vol.1:30-33.
8. Todoroki T, Iwasaki Y, Orii K et al: Resection combined with intraoperative radiation therapy (IORT) for stage IV (TNM) gallbladder carcinoma. *World J Surg* 1991; 15: 357-366.
9. Misra NC, Chagtuvedi A, Jaiswal MSAD et al: Intrahepatic arterial infusion with combination of mitomycin C (MMC) and 5-fluorouracil (5-FU) for treatment of primary and metastatic carcinoma liver. *Reg Cancer Treat* 1992; 5: 12-16.
10. Misra NC, Chaturvedi A, Ahmad A et al: Epidemiology, aetiology and chemotherapy of cancer gallbladder with special reference to intrahepatic arterial infusion with mitomycin-C and 5-fluorouracil. *fifth International Congress on Anti-Cancer Chemotherapy, Paris, Abstract* 1995 No.0-737: 162.